

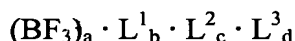
**Claim Amendments**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims**

Claim 1 (Currently Amended): A process for preparing polyisobutene having a content of terminal vinylidene groups of at least 75 mol %, comprising:

polymerizing isobutene or isobutenic hydrocarbon mixtures in the liquid phase in the presence of a boron trifluoride complex catalyst of the composition



~~where~~ wherein

- $\text{L}^1$  is water, a primary  $\text{C}_1$ - $\text{C}_5$ -alkanol and/or a secondary  $\text{C}_3$ - $\text{C}_5$ -alkanol,
- $\text{L}^2$  is at least one aldehyde and/or one ketone,
- $\text{L}^3$  is an ether having at least 5 carbon atoms, a secondary alkanol having at least 6 carbon atoms, a primary alkanol having at least 6 carbon atoms and/or a tertiary alkanol, and wherein

- the b:a ratio is in the range from 0.9 to 3.0,
- the c:a ratio is in the range from 0.01 to less than 0.5,
- the d:a ratio is in the range from 0 to 1.0.

Claim 2 (Previously Presented): The process as claimed in claim 1, wherein  $\text{L}^1$  is selected from the group consisting of water, methanol, ethanol, 2-propanol, 1-propanol and mixtures thereof.

Claim 3 (Currently Amended): The process as claimed in claim 1, wherein  $L^2$  is selected from the group consisting of formaldehyde, acetaldehyde, propionaldehyde, n-butyraldehyde, isobutyraldehyde, acetone, methyl ethyl ketone, diethyl ketone and mixtures thereof.

Claim 4 (Previously Presented): The process as claimed in claim 1, wherein the d:a ratio is in the range from 0.1 to 1.

Claim 5 (Currently Amended): The process as claimed in claim 4, wherein  $L^3$  is selected from the group consisting of methyl tert-butyl ether, di-n-butyl ether, di-n-hexyl ether, dioctyl ether and mixtures thereof.

Claim 6 (Previously Presented): The process as claimed in claim 4, wherein  $L^3$  is selected from primary alcohols having  $\beta$ -branching.

Claim 7 (Previously Presented): The process as claimed in claim 6, wherein  $L^3$  is selected from the group consisting of 2-ethylhexanol, 2-propylheptanol, the oxo alcohols of dimeric, trimeric and tetrameric propylene, dimeric butene, trimeric butene and mixtures thereof.

Claim 8 (Previously Presented): The process as claimed in claim 4, wherein  $L^3$  is tert-butanol.

Claim 9 (Currently Amended): The process as claimed in claim 4, wherein  $L^3$  is selected from the group consisting of n-hexanol and n-octanol.

Claim 10 (Currently Amended): The process as claimed in claim 1, wherein the for  
~~preparing~~ polyisobutene ~~having~~ has a number-average molecular weight  $M_n$  ~~of~~ ranging from  
500 to 2500 dalton.

Claim 11 (New) The process as claimed in claim 1, wherein from 0.5 to 10 mmol of  
complexed boron trifluoride catalyst, calculated as  $\text{BF}_3$ , reacts with olefin monomers, on a  
per mole basis, in the isobutenic hydrocarbon mixture.

Claim 12 (New) The process as claimed in claim 1, wherein the polymerization  
reaction is conducted at a temperature within the range of 0 to  $-40^\circ \text{C}$  at a pressure of 0.5 to  
20 bar (absolute).

Claim 13 (New) The process as claimed in claim 1, wherein the polymerization  
reaction is conducted at a temperature within the range of 0 to  $-30^\circ \text{C}$ .